Part I

WindowBuilder Pro/V Tutorial

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WindowBuilder Pro/V

Chapter 1 — Getting Started

WindowBuilder Pro may turn out to be the smartest purchase you've made since you decided to buy and use Smalltalk/V as your development environment. WindowBuilder Pro simplifies and streamlines one of the most difficult aspects of Smalltalk/V programming: user interface development. Thousands of Smalltalk/V programmers have come to rely on WindowBuilder Pro's predecessor products. For this version, Objectshare Systems has pulled out all the stops and created a whole new, world-class generation of what may well be the most widely used development tool in the world of Smalltalk/V.

Using WindowBuilder Pro is simplicity itself. Just draw the user interface the way you want it to look, complete with all of the elegant and powerful UI elements built into your favorite GUI platform. Move things around at will. Experiment freely with different layouts, colors, fonts. Magically transform a set of radio buttons into a scrolling list to see if it improves usability. Prototype a multi-window interface and demonstrate it without writing a single line of Smalltalk/V code!

Then, when you're finally happy with the design, click a button and generate the Smalltalk/V source code to form the core of your application.

The user interface is so easy to design and to perfect that even though it's all but guaranteed that you'll spend far less time working on the UI than you ever would in Smalltalk/V without the help of WindowBuilder Pro, your interfaces will have that little extra something that makes people smile in satisfaction at using your programs.

What You Should Already Know

We assume that you already understand some basic things before you begin your work with WindowBuilder Pro.

First, you should have a good working knowledge of Smalltalk/V. If you don't, you should work through either Digitalk's tutorial chapters or Chapters 1-4 of the book *Smalltalk Programming for Windows*, by Dan Shafer, available from Prima Publishing or through Objectshare Systems. If you're new to Smalltalk, you might try both books.

Second, you should understand how the platform on which you are programming works at a fairly deep user level. For example, if you are work-

ing with Windows, you should be comfortable with how combo boxes, pull-down menus, accelerator keys, dialogs, window controls, scroll bars, and other common controls operate. Without that fundamental knowledge, you can't design user interfaces that your users will find comfortable.

What's In This Manual

This manual is unlike any other you have experienced with any other software product. Rather than making assumptions about what you might already know about Smalltalk/V or, equally badly if not worse, boring you with long-winded explanations of things you already understand, we recommend the most widely used Smalltalk/V application programming book, *Smalltalk Programming for Windows*, by Dan Shafer, Scott Herndon, and Laurence Rozier. This book is available, at a discount, from Objectshare Systems, Inc.

NOTE

Don't let the fact that the book is about Windows programming concern you if you are using OS/2 or the Macintosh in your work. The Shafer-Herndon-Rozier title largely stays out of the platform-specific issues involved in Smalltalk/V programming and is nearly 100% useful with all of Digitalk's Smalltalk/V versions for Windows (2.0 and later), OS/2 Presentation Manager (2.0 and later) and Macintosh (2.0 and later).

Chapter 2 of this manual, "Learning WindowBuilder Pro," starts with a quick peek at WindowBuilder Pro. The bulk of the chapter describes how to code Smalltalk/V applications using WindowBuilder Pro as a base.

Chapter 3 of this manual, "Using WindowBuilder Pro," describes the most interesting and often used features of WindowBuilder Pro and how to use them.

Chapters 4 through 6 are keyed to the book *Smalltalk Programming for Windows*. Each of these chapters describes and presents a WindowBuilder Pro implementation of one of the key example programs in the Windows programming book. For each example, we describe what the finished project should look like and what it should do. Then we describe how we constructed it using WindowBuilder Pro, which gives you the opportunity to see how much time and coding you're saving by comparing this process with that described in the book itself, where raw Smalltalk/V is used. Finally, each of these chapters concludes with a discussion of how the

application was completed after the UI was fleshed out in WindowBuilder Pro.

The second half of this manual constitutes the Reference Guide. It describes each UI component's interface in detail, furnishes a nearly complete Encyclopedia of Classes for all of the widgets supported by WindowBuilder Pro and includes, as appendices, some advanced design and coding considerations.

Differences From Earlier Versions

WindowBuilder Pro is the latest version of a product introduced to the Smalltalk/V world in 1990, first as Widgets/V for the Macintosh and 80286 (DOS) families of computers. In 1992, Cooper & Peters, who created the Widgets product, introduced WindowBuilder and a companion product, SubPanes/V. In early 1993, Objectshare Systems, Inc., purchased the rights to the WindowBuilder line, including the Widgets products. Window-Builder Pro is Objectshare Systems' first enhancement of the product.

Appendix B describes in detail the differences between WindowBuilder Pro and older versions of the program (including WindowBuilder of Windows 1.1 and 2.0 and WindowBuilder of OS/2 1.1). If you are an experienced user of the older version of WindowBuilder, you might find a review of that appendix sufficient to launch you comfortably into using WindowBuilder Pro.

Some of the most important differences between the old and the new versions of WindowBuilder Pro (you didn't think we'd be able to resist at least a little commercial, did you?) include:

CompositePanes, which permit you to create and reuse groups of components nested within and combined with other UI elements.

Scrapbook, where you can store individual panes and groups of panes in "pages" for quick and easy retrieval. The Scrapbook is further divided into chapters, so organizing your work as you build complex applications is a snap.

Morphing, a slick new function that permits you to transform a user interface element into any other reasonable element with similar functionality. WindowBuilder Pro automatically translates attributes where possible.

Rapid prototyping features that include LinkButtons, LinkMenuItems, ActionButtons, and ActionMenuItems, which can be quickly and easily connected up to standard kinds of functionality so that you can quickly and easily prototype even complex, multi-windowed applications.

In addition, the entire "look and feel" of the product has undergone a transformation to integrate its various elements more tightly with one another and to take advantage of palettes and toolbars to give you quick, clickable access to the vast majority of the common functions you want to carry out.

There's a lot more that's new; take a look at the Reference Guide for details.

Manual Conventions

We use a number of standard conventions in this and the Reference Guide to help you understand what you are reading.

Smalltalk code is shown in the `Courier` font so it will stand out.

References to instances of classes start with lower-case letters, while references to classes begin with upper-case letters. For example, *Before adding methods to your viewmanager, you may wish to study the ViewManager class*. (The only exception to this is WindowBuilder classes; all references to the product as a whole and to instances of its windows will always start with upper-case letters.)